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NON-BANK FINANCIAL INSTITUTIONS AND THE SEQUENCING OF FINANCIAL REFORM

by

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Abstract

This paper discusses the role of non-bank financial institutions in processes of financial policy reform and institutional development and the implications of their operations for the sequencing of such reforms. It distinguishes among non-bank financial organizations that result from upward-looking or downward-looking innovations and those that reflect regulatory avoidance. First, upward-looking innovations to respond to specific demands require the development of a complex institutional infrastructure. Second, absence of competitive neutrality in the regulatory framework leads to avoidance: off-balance-sheet liabilities, off-shore operations, and parallel markets. Third, downward-looking innovations are needed to expand the financial frontier toward marginal clientele. This requires solutions to important information, risk, and incentive problems. Various types of non-bank organizations have been created for this purpose. There is a need for prudential regulation and supervision that is idiosyncratic and protects competitive neutrality, while at the same time avoids financial repression.

NON-BANK FINANCIAL INSTITUTIONS AND THE SEQUENCING OF FINANCIAL REFORM[1]

by

Claudio Gonzalez-Vega[2]

I. Bank and Non-Bank Intermediaries

The general purpose of this conference has been to identify issues to be resolved and lessons learned concerning the most appropriate speed of adoption and the correct sequencing of financial policy reforms and the accompanying institutional development. Better policies and stronger institutions are needed to more efficiently provide financial services that contribute to improved resource allocation, greater macroeconomic stability, and more rapid rates of output growth. This paper is concerned, as well, with policy and institutional improvements that would facilitate access to financial services for much wider segments of the population in developing countries.

So far, the focus of the conference has been on macroeconomic policy management, the performance of money markets and efficiency of the payments system, as well as privatization of financial and non-financial enterprises and the development of capital markets, mostly in emerging market economies. Attention has been paid, particularly, to the regulation and supervision of banks. This emphasis is quite appropriate.

First, in a repressive policy framework or unstable macroeconomic environment, few (formal) financial institutions can flourish. Macroeconomic stability, low rates of inflation and, in particular, fiscal control are clearly prerequisites for successful financial reform (McKinnon, 1991). Second, increased efficiency of the payments system is critical to reduce transaction costs in markets for goods and services, factors of production, and assets and to foster market

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integration. Banks are important precisely because their performance is closely linked to the efficiency of the payments system.

Moreover, because monetary assets (the liabilities of the banking system) dominate the financial portfolios of (non-bank) savers, particularly in developing economies, banks represent the most important source of funding of investment and of productive activities, in general, beyond the owned savings or retained earnings of most enterprises, at least in the formal sector. Thus, banks matter a lot because of their key role in providing both monetization and intermediation services to the economy. Third, the emergence of strong banks will be critical for economic progress in countries in transition from command to a market allocation of resources. The development of stable banking systems in those economies will not be a trivial task, however, particularly given an incomplete organizational framework (Caprio and Levine).

In turn, bank regulation and supervision matter because of the potential negative externalities associated with bank failures (Kaufman). In the absence of regulation, bank instability may actually be higher than is socially optimum, and the volume of deposit contracts may decline. These contracts provide, given asymmetric information in financial markets, occasion for the opportunistic behavior of bank managers and owners at the expense of depositors. Such market imperfections (moral hazard and externalities), combined with the breakdown of feasible collective action by depositors, in order for them to sufficiently constrain the behavior of banks, on the one hand, and with limitations of the institutional framework in offering effective tools for corrective action, on the other hand, provide the rationale for state intervention in the prudential (i.e., preventive) regulation and supervision of banks and other deposit-taking institutions (Chaves and Gonzalez-Vega, 1994).

The emphasis this conference has placed on banks has been, therefore, quite appropriate. The question addressed in this paper, however, is: what about non-bank financial institutions? What role should they play in processes of financial reform and institutional development? What are the implications of their emergence and operations for the sequencing of reforms and institutional development efforts?

A relevant discussion of these questions requires a distinction among three types of non-bank financial organizations, according to their origin:

(a) those resulting from *upward-looking* financial innovations;
(b) those resulting from regulatory avoidance; and
(c) those resulting from *downward looking* financial innovations.

While upward-looking innovations lead to a more sophisticated financial system, catering to the advanced needs of large commercial firms and wealthy investors, as income grows and the economy becomes more diversified, downward-looking innovations bring into the formal system clientele so far left out of the supply of basic financial services, thus expanding the frontier of the system (Von Pischke). In addition, market participants subject to repressive regulation invent (rather than innovate), in order to pursue new and unregulated financial activities that are not similarly taxed, but that would not be competitive in the absence of financial repression (Kane, 1977). This leads to institutional growth through regulatory avoidance.

II. Upward-Looking Innovations

As Levine described for this conference (following Goldsmith), there are predictable patterns of development of financial market structures (King and Levine). As income levels increase, the size of the domestic market grows, and development of the country's institutional infrastructure allows the design and enforcement of more complex contracts, the operation of new, non-bank, specialized intermediaries, such as mutual funds, pension funds, insurance companies, investment banks, venture capital funds, and the like becomes possible and responds to widening demands for risk-return combinations. With the emergence of these new types of financial organization, the structure of the financial system becomes increasingly complex and diversified.

While these new non-bank financial organizations play increasingly important roles in the selection (screening) of projects for funding and in the monitoring of firms and their managers, as well as in facilitating the acceptance and management of risk in the economy, they must rely on a relatively advanced degree of organizational development. They can only operate if the legal structures, institutional mechanisms (including appropriate regulatory frameworks), and information processes required are available. For this reason, they are usually in the future rather than the present of financial policy reform and institutional development, particularly in the thin markets of either the low-income developing countries or economies in transition. Thus, I tend to agree with Stiglitz (1993a), when he makes similar considerations about the development of equity markets, which can be expected to play only a minor role in raising funds for firms and in providing relevant information for investment decisions in transition economies and small developing countries.

The authorities must eventually anticipate, nevertheless, the emergence of these non-bank financial institutions, by contributing to the development of the organizational infrastructure that is essential for their efficient operation and, in particular, by adopting the regulatory framework and enforcement mechanisms needed to prevent fraud and avoid unnecessary instability. These measures, related to upward-looking financial innovations, would come late, however, in the sequencing of institution building efforts. They would not be a priority for foreign assistance, at least in the short run. Rather, in developing countries and economies in transition, such assistance should mostly focus on building better banks. The nature of the actions required for this task has been a topic competently analyzed by other participants in this conference. For this reason, I will not discuss these issues any further here.

III. Regulatory Avoidance

A second set of observed non-bank financial institutions are the outcome of regulatory avoidance efforts, in the presence of repressive policies and mandated constraints on financial intermediary operations. Financial repression encompasses all forms of regulation that distort financial markets and reduce the efficiency of their performance (Shaw; McKinnon, 1973). The purpose of these regulations is typically to tax (or subsidize) financial transactions or to influence resource allocation by setting constraints on financial transactions.

Repressive interventions include collection of the inflation tax, credit subsidies, mandatory credit allocations and targeted loans, confiscatory reserve requirements, overvaluation of the domestic currency, and excessive restrictions to entry into the market. Efforts to alter financial market solutions through coercive regulation induce responses in the form of *inventions,* to avoid the initial regulation or its consequences. These innovations may take the form of new products and services, may lead to product substitution, or may result from the emergence of new intermediary types (Kane, 1977).[3]

Regulatory avoidance is particularly intense when regulation is partial and/or non-neutral. The competitive neutrality of any regulatory framework is required in order to provide a level playing field to all market participants. Such neutrality would allow them to exploit their specific comparative advantages without hindrance (increased efficiency), and would also minimize efforts of regulatory avoidance triggered by any discriminatory treatment (such as when some intermediaries are taxed or subject to reserve requirements and others are not).

In the presence of repressive and non-neutral regulatory frameworks, avoidance may have several of the following consequences:

(a) First, it may lead to the undertaking of non-regulated activities by otherwise regulated institutions.

Thus, for example, if reserve requirements on deposits are excessive, banks may design new quasi-deposit instruments (e.g., *fideicomisos* or funds in trust) not subject to such requirements, thus undermining the original intent of the regulator. In other cases, given constraints on loan transactions, these non-regulated activities may lead to the accumulation of off-balance sheet

[3] Repressive regulation also induces rent-seeking and other costly but not directly productive activities, aimed at attracting privileges or avoid implicit taxes (Gonzalez-Vega and Mesalles).

and other contingent liabilities.[4] This behavior may increase risk in the system and complicate the enforcement of capital adequacy requirements.

In Ecuador in the early 1980s, for example, constraints on interest rate determination and other regulatory measures (reserve requirements) repressed domestic funds mobilization and led domestic banks to guarantee loans by foreign banks rather than to lend themselves. When they and their clients were not able to face the accompanying foreign exchange risk, soon after a major devaluation a massive bailout by the Central Bank was needed, with substantial quasi-fiscal costs (Gonzalez-Vega, 1994a).

Recently, prudential regulation in Latin America has attempted to follow the norms of the Basel Convention. These norms include capital adequacy requirements, computed on the sum of the weighted risk amount of assets and off-balance-sheet contingency accounts, multiplied by a capital adequacy factor. If banks are reluctant to increase their capital base, they will attempt to maintain few of the assets subject to the highest risk weights (e.g., loans). In order to avoid increased capital contributions, moreover, banks may adopt policies that unintendedly increase their risk, with little opportunity for the authorities easily to recognize it.

The challenge for the regulator is to design risk weights that lead to appropriate (prudential) capital requirements without inducing distorting unanticipated risk-taking. This purpose is not always achieved. Gómez (1994) has shown that in Ecuador, adoption of a three- percent capital requirement on the current loan portfolio, a five-percent requirement on the off-balance-sheet contingency accounts, and a 100-percent requirement on accrued interest made it more attractive for banks to provide clients with a guarantee on a loan from a third party than to grant a direct loan.[5] This inclination was accentuated by very high reserve requirements on domestic deposits. As a result, the four largest banks of Ecuador had off-balance sheet contingency accounts between 102 and 310 percent of their loan portfolio. These loan guarantees are high-risk contingent liabilities when denominated in foreign currency, as they were in Ecuador, if the bank must

[4] Off-balance-sheet activities categorize formal and informal commitments that generate contingent claims against a financial institution's resources. They are typically agreements to provide or to guarantee credit and to deliver various other customer services on a standby basis. Because these agreements are offered contingently, generally accepted accounting principles do not require associated claims to be valued and entered on balance sheets of the contracting parties. Although accountants have designated the associated claims as off-balance-sheet items, economic analysis must consider them coequal elements of an institution's generalized or market-value balance sheet (Kane, 1985). Thus, although off-balance sheet liabilities may no affect the intermediary's balance sheet at present, they may generate a claim on its assets in the future. Thus, they represent actual contractual obligations that imply risks and that might trigger insolvency overnight.

[5] Part of the reason is that this requirement is sensitive to nominal interest rates, which rise with inflation.

disburse the funds immediately to honor the guarantee and has taken a foreign-exchange risk in its commitment. Eventually, a major devaluation placed these banks in the position of not being able to honor the guarantees granted.

(b) Second, regulatory avoidance may lead to the establishment of off-shore operations, owned by domestic financial intermediaries, which allow them to locate some of their activities beyond the jurisdiction of the local regulatory framework, in order to avoid its (repressive or prudential) rules and constraints.

In the case of Costa Rica, for example, it has been estimated that while off-balance sheet liabilities that substitute for regular deposits account for 15 percent of the banks' productive assets, their off-shore operations are at least of the same size as their domestic operations (Camacho-Mejía and Gonzalez-Vega). Not only is regulation in these off-shore sites less constraining, which may in some cases be a source of concern, but the mixing of domestic-regulated and off-shore-unregulated operations massively complicates the task of prudential supervision in the home country of the banks.

For example, the information contained in the financial statements of the domestic banks does not always provide a full picture of their true risk exposure, as the banks arbitrarily mix, add, or omit records, from one to the other operation. Frequently they attempt to charge most of the combined fixed costs to the operations of the domestic headquarters, but accrue most (unconstrained) earnings at the off-shore subsidiary. In these circumstances, financial ratios and other indicators mean little for prudential supervision tasks. In this connection, Costa Rica is not an exception among countries saddled by financial repression, where banks have found ways of relocating the site of their operations to avoid the implicit tax.

(c) Third, initiatives for regulatory avoidance may lead to the establishment of non-regulated intermediaries in parallel domestic financial markets.

In the mid-1980s, for example, we were able to identify close to 1,000 unregulated *financieras* and other non-bank intermediaries, operating side by side with over two dozen regulated banks (and frequently closely linked to them), just in the city of Santo Domingo, in the Dominican Republic (Gonzalez-Vega and Zinser). This was a dramatic example of the exit (Laffer) effects associated with excessive regulation. Continued attempts to regulate the financial sector, each time more strictly, progressively resulted in a shrinking regulated segment of the market and in less (rather than more) control by the authorities.

The emergence of these unregulated parallel markets helped, however, to alleviate the negative consequences of financial repression. They kept in Santo Domingo deposits that would have otherwise migrated to New York (thus preventing capital flight) and supplied loans to marginal clientele displaced from the shrinking portfolios of the regulated banks (thus offsetting some of the negative distributional consequences of disintermediation). Depositors as well as intermediaries required higher risk premiums in these non-regulated markets, however. This and high transactions costs of searching for depositors and for borrowers and of monitoring for lenders substantially increased the total cost of borrowed funds in these market segments. Thus, parallel markets did not necessarily look like the efficient curb markets of the neo-structuralist world (Dauhajre). In the presence of the resulting high real rates of interest, adverse selection effects became important and portfolio risks increased. In the absence of prudential supervision, opportunistic behavior flourished. Eventually, flight by night by some *financiera* owners caused a domino effect, leading to a collapse of the parallel market and even to failure of some regulated banks, with close links to non-regulated intermediaries.

The universally observed negative consequences from widespread financial repression suggest that inappropriate regulation may frequently be more dangerous than no regulation at all, even when theoretical reasons for intervention exist (Besley; Gonzalez-Vega, 1994c). What really matters are the actual effects of regulation, not merely its objectives. Too often good intentions of not-well-designed regulations are eclipsed by their more powerful unintended evils (Adams, Graham, and Von Pischke; Kane, 1977; Gonzalez-Vega, 1993). Moreover, highly effective supervision efforts, directed at making sure that repressive restrictions are enforced, reduce rather than increase social welfare. Indeed, when supervision of the financial system is used to enforce repressive regulation and it is successful in deterring regulatory avoidance, the potential damage is greater (Gonzalez-Vega and Mesalles). The solution, therefore, is not to enforce the rule more effectively , but to eliminate the original financial repression. When this is not possible, regulatory avoidance would usually be better than strict compliance with the repressive mandates.

IV. Competitive Neutrality

Prudential (as different from repressive) regulation attempts to promote stability and efficiency, by constraining the opportunistic actions of financial intermediaries and contributing to the safety and soundness of the banking system (Bengston et al.). Prudential efforts also attempt to protect (small) depositors against fraud or failure. Non-distorting prudential regulation relies on mandates of a general nature, inducing (mostly through compatible incentives) all market participants to adhere to standard rules that protect the stability of the system.

From this perspective, therefore, as repressive financial regulation is dismantled in developing countries and prudential supervision is adopted instead, it is important that the authorities strive to achieve, very early in the process, **competitive neutrality**, in the sense that instruments and/or financial organizations that are essentially the same, do receive equal treatment within the new regulatory apparatus. The regulatory environment must provide all market players with a level playing field (Chaves and Gonzalez-Vega, 1994). If, on the contrary, particular intermediaries are granted artificial advantages (as a result, for example, of their different charter names, ownership, structure, or client orientation), not only will allocative efficiency be reduced, but regulatory avoidance will be encouraged.[6]

In addition, because of the inevitability of both frequent financial innovations and regulatory avoidance, the regulatory framework should not be static. Rather, it should quickly respond to changes in financial products and in market structure, in order to protect dynamic efficiency. Technological change spreads rapidly in financial markets, as both product and process innovations are easily replicated by competitors. Financial products are openly available and typically not protected by patent. Processes are copied through the mobility of employees and frequently require only widely available technologies (telecommunications, computers). Prudential regulation and supervision must keep up with these changes, pushing their authority beyond banks, to include non-bank intermediaries. The process of institutional reform in the regulatory arena must anticipate these increasing pressures on the supervisory agency and provide it with adequate tools and powers (Camacho-Castro and Gonzalez-Vega).

Moreover, prudential regulation becomes increasingly less effective in the presence of regulatory avoidance, unless the regulators respond rapidly in order to close the loopholes created by invention. This is a difficult task, because regulators tend to react more slowly than the organizations that they supervise. Thus, in this process of regulatory dialectic (regulation, avoidance, re-regulation) the authorities tend to lag behind (Kane, 1977). The mix of political and economic incentives that governs the behavior of government bureaucrats greatly lengthens the inevitable lag of examiner recognition behind the true importance of emerging forms of yet-to-be-regulated risk (Kane, 1985). Regulatory lags amplify incentives for market participants to invent and pursue new forms of risk. The supervisory agency must be allowed to operate, therefore, with much flexibility.

In this sense, a simplistic concept of sequencing is inappropriate. Rather than the once-and-for-all placement of specific building blocks, effective prudential regulation and supervision (a critical component of a successful financial reform) are continuing processes, moving along with the evolution of market forces, technological innovation, and organizational structures. Institutional development is not about "this first and that next," but about the evolution of a broadly-based set of inter-related components.

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[6] Allocative efficiency requires that available resources flow to the financial organizations that offer the highest expected risk-adjusted rates of return. Regulation should not be used to promote the achievement of "social" objectives or to assist particular sectors of the population for reasons not related to the services of financial intermediation *per se.*

V. Downward-Looking Innovations

Some of the most interesting and challenging issues of financial reform and regulation and of financial institution development concern the promotion of downward-looking innovations. Here I refer to the provision of financial services to individuals (households and firms) located at what Von Pischke has called *the frontier*; that is, those economic agents not usually considered as creditworthy by formal financial institutions. Rather than creating increasingly sophisticated financial arrangements upstream, innovation in this case enlarges financial markets by serving new market niches downstream, responding to basic demands by clientele not yet reached by institutional finance. This task, for some not as glamorous as the development of capital markets or financial derivatives, and easily populated by romantic utopians, is nevertheless important and equally difficult. Foreign assistance to developing countries and economies in transition should concentrate efforts in this area.

Initiatives to move the frontier outward, further expanding and integrating financial markets, may come from two sources (Von Pischke):

(a) Pressure may come from entrepreneurial intermediaries and investors (innovators) that attempt to leap the frontier and bring formal financial services to clientele who have not used them before; their innovations improve risk management and reduce transaction costs, creating opportunities for profitable financial intermediation in new market niches. These innovators may include exceptional bankers, willing to reach downward into new market segments, or emerging non-bank organizations that can generate comparative advantages in supplying financial services to difficult clientele.

(b) Pressure may also come from government (and/or donor) intervention, either directly, by providing financial services to specific target groups through state-owned banks or non-government organizations (NGOs), or by indirectly requiring existing financial intermediaries to lend to those clientele. Government actions may also contribute to this goal by improving the organizational framework (physical and institutional infrastructure) that facilitates the task of financial intermediaries in reaching clientele at the frontier, by promoting research and development in financial technologies, or by capitalizing organizations ready to accept the challenge.

Some guidance in understanding the complexities of this task may be obtained from a brief review of the history of targeted financial market interventions. The prevalence of failed attempts at influencing prices and quantities of financial transactions by decree suggests that it may be better to work with, rather than against, financial market forces (Kane, 1984; Von Pischke).

VI. Financial Market Interventions

In the 1950s, particularly in the rural areas of developing countries, the finance "problem" was defined as:

(a) a generalized lack of access to formal, institutional credit; coupled with
(b) too high and dispersed rates of interest in informal credit transactions; and
(c) some limited degree of access to mostly short-term and small informal loans, seen as not a good vehicle to finance productive investment.

At that time, these patterns were diagnosed mostly as a reflection of two types of market failure:

(a) first, they were attributed to something vaguely described by the statement that "commercial banks are too conservative," a caution which might have been due to information and enforcement problems (although in the 1950s we were still a long way from Stiglitz and Weiss), in addition to the presumed "risk aversion" of formal lenders (which was seen as either "irrational" or "socially undesirable"), and
(b) second, they appeared to reflect the excessive monopoly power of moneylenders.[7]

In most developing countries, the typical policy answers to these "problems" and to the "failure" or markets to provide financial services to politically preferred clientele were:

(a) the creation of government-owned specialized (such as agricultural) development banks, and
(b) the establishment of subsidized, targeted credit programs.

These interventions became prominent in the strategies of financial repression that current financial reforms are attempting to turn around. Their failure illustrates the shortcomings of inappropriate government intervention in financial markets (Gonzalez-Vega and Graham).

Looking back, such presumed sources of market failure were not the only possible reason for the patterns of rural finance observed. Both lack of access to formal credit and the high costs and short terms of informal loans may have also resulted from an incomplete organizational framework. That is, they would easily reflect the high transaction costs required to overcome the

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[7] In the presence of imperfect intertemporal markets, given information asymmetries, initially unequal allocations of assets (e.g., land) may have long-lasting adverse consequences on efficiency and growth through their implications for individuals' ability to accumulate physical and human capital (Rosenzweig and Wolpin, 1993). Government policies to deal with these problems have aggravated, however, rather than alleviated the credit rationing of the poor (Gonzalez-Vega, 1976; Bencivenga and Smith, 1991).

"frictions" that result in any market from an inadequate physical infrastructure or an incomplete institutional framework (Myint). Among typical shortcomings of the organizational framework that limit opportunities for financial transactions would be inappropriate definitions of property rights and absence of effective mechanisms for contract design and enforcement. Limited development of the physical infrastructure would also increase the costs of gathering information and monitoring the actions of agents (e.g., borrowers).

Moreover, recently elegant economic theory has emphasized market failure again. Market imperfections would result mostly from asymmetric information and from opportunistic behavior that leads to moral hazard and adverse selection problems (Stiglitz and Weiss; Rashid and Townsend). We are a long distance away, however, from being able to use such theoretical results to recommend **robust** classes of widespread government intervention and to identify feasible instruments for such intervention (Besley). Furthermore, now we understand much better the high costs of government failure and of the associated rent-seeking and other not directly productive (DUP) activities that are encouraged by protectionist interventions (Gonzalez-Vega 1993). Knowledge of the administrative difficulties and of political economy scenarios for state activities should make us extremely cautious in recommending new forms of government intervention in order to reach marginal clientele.

Thus, to the question of what explains lack of access to financial services by marginal clientele there are some alternative answers:

(a) the problem may be due to the presence of market imperfections that must be corrected, typically with a particular tax-cum-subsidy (quasi-fiscal) intervention or with some planned (administrative rather than a market) allocation of resources (i.e., the protectionist explanation),[8] or

(b) there may be cost-effective opportunities for improved allocations of resources, to be achieved by further development of the country's physical and institutional infrastructure (i.e., the institutional economics explanation).

The development of the required organizational framework may still be a critical function for the state, essentially in the provision of public goods, rather than in interfering with the pricing of or in the direct allocation of credit. This implies a different view of the role of the state in processes of economic development.

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[8] An alternative intervention, grounded in modern theory but still unfeasible, would be effective mechanism design that would offer a cost-effective solution to the information and incentive problems involved.

VII. The Finance Problem

A more productive undertaking would be to attempt a better understanding of the fundamental nature of the (access to) finance problem. Beyond Von Pischke's frontier, in the developing countries there are some economic agents with wealth but not attractive additional (marginal) investment opportunities of their own and, particularly, large numbers of agents with unexploited opportunities, but not sufficient owned funds to fully take advantage of them. The challenge of financial intermediation is to match those "with money but no projects" to those "with projects but no money."

Institutional solutions to this problem typically involve transforming illiquid projects into liquid claims (possibly through a chain of intermediaries, which bridge the gap by offering liabilities that are more liquid than their own assets). In this process of transformation, problems emerge when borrowers are unable to repay (as when they experience a negative shock) or are unwilling to repay (when it is not optimal for them to do so). In this last case, the market requires a framework for cost-effective legal enforcement of the contract. In the absence of the required institutional infrastructure, costs of enforcement may be too high and potential borrowers would not have access to formal loans.

In addition, any lender's supply of credit to a particular borrower depends upon the possession of enough information about the borrower's reliability and about the nature of the productive opportunity being financed. In the absence of sufficiently good enough information, the loan will not be granted, because uncertainty about repayment will be too high. If, in addition, information is asymmetric, there are opportunities for moral hazard. Individuals who have already borrowed may slacken in efforts needed to make the project successful or may change the nature of the project, making it riskier. Because of fears that this may happen, lenders need to monitor borrower behavior. If monitoring is too costly, they may either restrict the amount of the loan or not lend at all. Furthermore, if higher interest rates attract riskier borrowers, such adverse selection problems may induce lenders not to use interest rates as a rationing device and to engage in credit rationing (Stiglitz and Weiss).

When this is the case, economic agents may be capital constrained; they may be excluded from investing, even though they could technologically undertake a project with positive net present value (Holmstrom). One possible solution to this problem is to use collateral: that is, the pledge of proven, more liquid assets, about which there is more knowledge and less asymmetric information and/or mechanisms for foreclosure exist that allow for cost-effective contract enforcement. Thus, in collateral-based lending, the liquidation value of the agent's assets, which is typically less than their value in the continued use by the agent, may restrict the amount of investment that the agent can undertake. If project assets are limited and not liquid, there may be no investment. This lending technology relies on the availability of collateralizable assets, within a well-defined structure of property rights, given cost-effective institutions for contract enforcement. It also implies the existence of markets where the value of such assets can be established.

Few of these preconditions may be present for marginal clientele in developing or transition economies.

An alternative solution is to find a financial intermediary that has **private** information about the agent or about the line of business and/or that can monitor the agent more effectively (information-based lending). Thus, agents with insufficient own (liquid) assets (collateral) will either not be able to invest or will have to find access to more information-intensive sources of funds, which in general would tend to be more expensive, but may be their only option. This will be the case, not only for the poor in developing countries, but also for numerous new and small firms in transition economies, where information is scarce and uncertain and the institutional infrastructure for contract enforcement is still missing. Moreover, most regulatory frameworks have been built around collateral-based lending technologies. In order to incorporate new clientele within the frontier, regulatory frameworks will have to be adapted to information-(character)-based lending.

VIII. Informal Lenders, Banks, and Non-Bank Intermediaries

Pervasive informal financial arrangements have been partially successful in overcoming information, incentive, and enforcement problems and in supplying a narrow range of specific financial services to the poor in developing countries. Informal financial markets rely on highly information-intensive lending technologies. Repayment-relevant information and opportunities for monitoring are obtained by local informal lenders at low marginal cost through their daily interactions with potential borrowers in their proximity. This information is a sunk cost for moneylenders, who offer valuable services to their clientele. Non-institutional mechanisms for contract enforcement, mostly based on the value of reputation, in personalized market settings, contribute to the existence of informal financial transactions.

Despite their valuable contributions, however, informal financial arrangements suffer from many limitations. These shortcomings stem from the very features that make them competitive: they are grounded in the community and are thus limited by the wealth constraints and the covariant risks of the local economy. As a result, their frontier is narrow and they do not go far in scope: geographically, over time, and across products. Informal arrangements provide only some financial services, in small amounts, for short periods of time. In many instances, they are not good vehicles for long-term investment. More importantly, because they are cost effective only in the immediate neighborhood, they do not overcome market segmentation and do not contribute much to the most important function of finance: the integration of markets. For this critical task, formal finance with a national scope would be required (Gonzalez-Vega, 1994b).

As the "Conference on Financial Services and the Poor" demonstrated, much technological progress has taken place in the area of microfinance.[9] The key in order to reach marginal clientele is to design (public or private) "innovations" properly dimensioned to the size of the market and compatible with the nature of the clientele. Traditional banking technology, for example, is prohibitively expensive most of the time in dealing with the poor. Both lender and borrower transaction costs are too high in this case. Banks may adopt, however, more information-intensive technologies, in their *downgrading* strategies to reach new clients (Krahnen and Schmidt). This may include the restructuring of public development banks, to expand the scope of their operations (Gonzalez-Vega and Graham).

Non-bank organizations (e.g., NGOs) may develop, in turn, comparative advantages in information and enforcement of contracts among these clientele, when contrasted with banks. They may be eventually *upgraded* to become banks or to mimic banks or in general to acquire some of the advantages of greater formality. In this case, they will be covered by the formal regulatory framework. Still another possibility is to allow the creation of entirely new types of financial institution.

In each case, the challenge is to bring together those who have information and enforcement advantages (usually local agents) and those with sufficient resources and a willingness to accept the risks of lending (frequently but not exclusively, governments and donors). This approach may generate, however, important new agency costs as governments, donors, apex organizations, or bank headquarters have to monitor the decentralized operations of branches, credit unions, village banks, NGOs, and the like (Chaves and Gonzalez-Vega, 1995).

Moreover, in many cases of institutional development or transformation, it appears that an important dimension of the strategy would be to add a deposit mobilization dimension to the services supplied by the financial organization, both because of the intrinsic value of deposit services for the clientele (and the economy as a whole) as well as for the beneficial impact that the financial discipline of deposit mobilization brings to the intermediary. Deposit mobilization is critical to fully reap the benefits from financial intermediation, as it offers valuable services to savers (who typically exhibit a high demand for depositing facilities), and contributes to the viability of financial intermediaries. In other cases, public and/or donor funds are used in the capitalization of non-bank financial organizations, namely:

(a) grant-equity or quasi-equity contributions to new or existing organizations,
(b) shareholder participation in new intermediaries, or
(c) the re-capitalization of government-owned banks.

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[9] "Conference on Financial Services and the Poor: U.S. and Developing Country Experiences," organized by the USAID Financial Sector Development Project and The Brookings Institution, in Washington, D.C., September 28-30, 1994.

IX. Idiosyncratic Regulation and Supervision

Deposit taking introduces, however, threats to the stability of the financial system and raises issues of depositor protection, which must be resolved before introduction of this important financial service is encouraged. Prudential regulation and supervision are thus almost indispensable in the case of deposit-taking intermediaries, both for the protection of (small) savers from the opportunistic behavior or simply the financial incompetence of the organization's owners or managers and for the global protection of the system's stability (Chaves and Gonzalez-Vega, 1994).

Internal control tools are also critical when the public sector is a (minority) shareholder in a private financial intermediary. Public sector shareholders in (mixed property) commercial banks need the means to exercise internal control and performance monitoring and the incentives to do it properly. This requires both understanding of the threats faced by the organization as well as the design of incentive-compatible terms of appointment. The same would be true of the boards of directors of NGOs and government-owned intermediaries. Accountability of public servants and mechanisms to enforce it are particularly relevant for government-owned agencies. Social-interest considerations also justify the monitoring of public sector funds granted as equity or quasi-equity contributions and as soft-term loans (e.g., through a second-tier rediscounting facility) to private and public financial organizations.

Requirements for safe deposit taking as well as adequate vigilance of public sector funds may demand some form of government regulation and supervision. During the past decade there has been considerable progress in the design and implementation of new instruments, organizations, and criteria for the prudential regulation and supervision of banks (Vittas). The developed nations have adopted Basel Convention standards and several developing countries have gradually adapted them to their particular circumstances. Stronger superintendencies of banks have been created and upgraded in many countries (Chile, Bolivia, Ecuador, Costa Rica, the Dominican Republic, and Indonesia, among others).

Institution building is a long-term process, however, even for the prudential supervisor. In practice, therefore, many of the new superintendencies have encountered serious problems in implementation of new prudential rules, are frequently overburdened by their new responsibilities, and have only limited resources to complete their more demanding tasks. These complications militate against lending at the frontier and mobilizing the deposits of the poor.

Both the downgrading of bank operations, for which they must adopt more-information-intensive technologies, lend less against traditional collateral, and develop sources of local information and enforcement, as well as the promotion and upgrading of non-bank organizations (such as credit cooperatives and other mutual intermediaries, NGOs that provide financial services, village banks and other collectively-owned local organizations) pose difficult questions, therefore, for the development of an appropriate prudential regulatory and supervisory framework. In particular, traditional standards of prudential regulation may not be equally applicable, and new standards and examination methods must be designed.

In instances of downgrading, some bank superintendencies have found it difficult to adjust their prudential criteria to cover loan portfolios not based on traditional collateral requirements. In implementing risk-weighted capital requirements, for example, they have tended to penalize loans not guaranteed by traditional collateral and/or based on screening tools that do not rely on audited financial statements. These prudential standards are linked to collateral-based lending, but are not appropriate for information-based lending. There is a need, therefore, to design specific prudential criteria that are both friendlier to lending to the poor and still offer appropriate protection to depositors and the stability of the financial system.

On the one hand, in the case of risk-adjusted capital adequacy requirements for banks, supervisors now rely extensively on the market value (liquidity) of traditional collateral. As lending technologies become more information intensive, when banks are downgraded, prudential supervisors must learn to examine and evaluate portfolios based on character lending and on the close monitoring of borrowers, rather than on traditional collateral. This is as much a challenge to supervisors as it is to traditional bankers.

On the other hand, if non-bank intermediaries are upgraded and, in particular, if they become deposit-taking institutions, this poses additional serious challenges to prudential regulators. Chaves has raised serious questions about the impact on (institutional viability) of property rights structures, internal incentives, and governance rules of non-bank financial organizations sponsored by governments and donors in attempts to expand the frontier. This is not the place to discuss these agency problems in detail. Substantial issues for policy reform and regulation emerge, however, from the different organizational design of non-bank intermediaries. Safe deposit mobilization requires, among other things, **idiosyncratic** prudential regulation and supervision, to regulate different (bank and non-bank) intermediaries differently. Idiosyncratic risks arise, among other things, as a result of the institutional design of specific non-bank intermediaries. Some intermediary types possess a diffused ownership structure. Their design may cause "owners" not to provide an optimal amount of oversight of their operations (internal control).

Therefore, bank superintendencies face adjustment problems in cases of upgrading as well. They find it difficult to recognize the need to offer idiosyncratic regulation for non-bank intermediaries and still maintain a level playing field, as required by competitive neutrality. Their examination tools have been appropriate for the traditional banking technology utilized by their main "customers," the private commercial banks. These tools, even applications of the well-known CAMEL methodologies, are not easily adaptable to the peculiarities of non-bank intermediaries (e.g., credit unions, village banks, NGOs). Many non-bank organizations face different risks (such as subsidy dependence risk), with which bank examiners are not familiar. There is a need to design different early-warning indicators, because the structure of assets and liabilities of the intermediary and the typical behavior of the clientele differ from traditional banking scenarios.

Microfinance intermediaries come in a large variety of institutional designs and legal charters and function in very diverse economic and legal environments. The range of institutional designs, according to ownership, goes from financial intermediaries without specific owners (e.g., non-government organizations for particular purposes) to private commercial banks that have found an interesting market niche in the sector (e.g., BancoSol in Bolivia). Intermediate organizational arrangements are client-owned financial intermediaries (e.g., credit cooperatives and village banks), and state-owned banks and government organizations (e.g., Bank Rakyat Indonesia *unit desa* system and the Badan Kredit Kecamatan in Indonesia).

Non-private financial organizations with no clearly defined owners (e.g., government-owned development banks) do not generate the optimum levels of internal control expected from private owners. Insufficient internal control increases the risk of illiquidity or insolvency. Prudential supervisors have to be concerned, therefore, with additional questions that need not be addressed in the case of private commercial banks. The required new skills and experience will take time to develop.

Moreover, some of the traditional standards of prudential regulation, such as capital adequacy requirements and prohibition of related loans, may not make sense when there are no owners (NGOs) or may not be applicable when the owners are clients (credit unions). Capital adequacy requirements are probably the most important component of any regulatory framework, because of capital's key role in the operation of a financial intermediary. The most elementary definition of equity capital is the amount of money that is left for the owners of the intermediary in the event the organization is dismantled, after all creditors are paid off. Equity capital are liabilities that cannot be withdrawn at all by the owners and on which it should not be necessary to pay a fixed or contracted return.

As such, capital plays two roles. The first one is the traditionally recognized function of buffer funds, to absorb losses on the income account. For moderate losses, capital would allow depositors to redeem their claims at full value. Nevertheless, due to high levels of debt relative to capital, on the liability side of depository intermediaries, capital does not represent a significant protection. This is because small losses, relatively to assets, may easily wipe capital out.

The authentic function of capital in terms of depositor protection is to perform the role of a **deductible** (hostage), in the sense of an insurance policy. Equity capital is the amount that would be lost by the owners of the bank in the event of bankruptcy. The larger the deductible (i.e., expected owner losses), the more cautious the behavior of the intermediary (i.e., less risk assumed). In short, from a regulatory perspective, the main function of equity capital is to induce compatibility of incentives between the depositors and the owners of the intermediary and thereby reduce moral hazard. Given a sufficiently large deductible, the interests of owners and of depositors would be similar and the former would behave accordingly.

The nature of the incentives implied by each one of the institutional structures of non-bank intermediaries would lead to different behaviors in the presence of capital adequacy regulations. NGOs do not usually have a residual claimant of the profits (or losses) generated by their financial intermediation activities. This implies that incentive-compatible regulations must be designed that go beyond simple capital adequacy requirements, which are sufficient to exert the desired behavior from commercial private banks, but not from organizations "without owners." The resulting problems may be only partially solved by regulation.

Credit cooperatives, on the other hand, do have owners. The problem here is that these owners behave according to their own (different) objective functions and create conflicts for the organization. These owners may find it privately profitable that the organization does not maximize its profits. This would be the case of net borrowers, whose payoffs from reduced organizational profits come at the expense of net savers. These conflicts may make these organizations particularly unstable (Poyo). The rivalry among owners also increases the risk of disintegration of the organization and creates increased opportunities for management to pursue its own interests. That is, client-owned financial intermediaries may be inherently more unstable and may suffer of larger principal-agent problems than other intermediaries under similar conditions.[10]

The diversity of non-bank financial intermediaries is further compounded by the diversity of the economic and legal environments where they operate. This is exemplified by the fact that NGOs lend to microentrepreneurs in countries as dissimilar as The Gambia and Chile, where the degrees of development of the infrastructure, legal systems, human capital, and the financial market itself are at extreme opposites. In The Gambia, where there are no formal banks, the financial distress of some large NGOs may have important consequences for the economy at large. In the case of Chile, similar outcomes would be perceived only by those directly affected, without major macroeconomic implications.

This diversity makes it impossible to provide a recipe that is easy to follow for the regulation of these organizations, while a generalized cost-benefit analysis for their regulation and supervision is impossible. Just as an example, the relative scarcity of the inputs necessary for regulation (e.g., trained bank examiners) changes the costs and benefits of supervision from country to country.

The fact that idiosyncratic risks may call for differentiated regulation is not contradictory with the principle of competitive neutrality stated before. Equality of treatment is not assured by treating unequals equally. Rather, the idea is to allow for a diversity of organizations compatible

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[10] Agency problems arise when the owner of some resources (principal) entrusts their management to another one (agent) who may have an objective function that does not necessarily coincide with that of the principal. The principal has to incur in monitoring and contract enforcement costs to guarantee that the agent behaves as desired.

with the multiple needs of the market, while at the same time assigning the regulatory burden with maximum efficiency (Chaves and Gonzalez-Vega, 1994).

Many of these non-bank institutions are comparatively recent. As experience accumulates and it is interpreted from the perspective of the conceptual framework developed in this paper, useful empirical generalizations will be found. The topic is important, given the responsibility to protect poor clients who trust the organizations that mobilize their funds and grant them loans and the objective to promote healthy financial markets, where the niche of providing credit to small borrowers and depository services to small savers becomes sufficiently attractive. In particular, it would be important to avoid policy backlashes, which might result from the failure of intermediaries that were not correctly regulated and supervised. Failures and policy backlashes would jeopardize any progress in the achievement of the objective of improving access to financial services for small entrepreneurs at the frontier.

X. Conclusion

This paper has discussed issues concerning the role of non-bank financial institutions in processes of policy reform and institutional development. The distinction among three types of non-bank organizations has made it possible to explore the complexity of the tasks for the authorities. Of particular importance is a balance between competitive neutrality and idiosyncratic regulation, in order to promote a division of labor within the market that allows for full expression of comparative advantages in serving all potential market niches.

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